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VOCATIONAL CHOICE AND JOB SATISFACTION.

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VOCATIONAL GUIDANCE CAN BE EMPLOYED BY EDUCATION AS ONE MEANS OF EFFECTING SCHOOL ADJUSTMENT TO INDUSTRIAL CHANGE. THE 115 RECENT (1960 - 1966) STUDIES REVIEWED IN THIS PUBLICATION HAVE IMPLICATIONS FOR VOCATIONAL GUIDANCE. FIVE PROJECTIONS OF EMPLOYMENT WHICH INDICATE FUTURE JOB NEEDS ARE REVIEWED. STUDIES OF VOCATIONAL CHOICE ARE CLASSIFIED ON THE BASIS OF CHOICE -- (1) INTERESTS, (2) PARENTS, (3) ASPIRATION, (4) MATURATION, (5) ATTITUDES, (6) PRESTIGE, (7) VALUES, (8) ACHIEVERS, (9) MOTIVATION, (10) SELF-CONCEPT, (11) STAGES OF OCCUPATIONAL CHOICE, (12) VOCATIONAL TRAINING, (13) INDIVIDUAL COUNSELING, (14) GROUP COUNSELING, (15) GUIDANCE AND COLLEGE, AND (16) ROLES. STUDIES OF JOB SATISFACTION ARE CLASSIFIED AS FOLLOWS -- (1) WORKING CONDITIONS, (2) ATTITUDES, (3) MEASUREMENT, AND (4) DEMOGRAPHY. A BIBLIOGRAPHY OF THE STUDIES IS INCLUDED. (EM)

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RESEARCH SUMMARIES

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Vocational Choice and Job Satisfaction

VT003209

P R E F A C E

As industrial technology increases and as occupations become more specialized there is an increasing need for emphasis to be placed on the vocational aspects of guidance programs in the schools. As a result vocational guidance is rapidly becoming a major phase of the function of the school counselor's responsibility.

Vocational guidance is employed by education as one means of effecting school adjustment to industrial change. The selected studies in this publication have implications for vocational guidance and are grouped to key with vocational choice and job satisfaction.

The usual care exercised in generalizing from small group research should be applied by the reader. Questions arising from any reading may best be answered by reference to the original source noted in the bibliography.

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VOCATIONAL CHOICE AND JOB SATISFACTION

EMPLOYMENT PROJECTIONS

Various employment projections that have been made for California's industries may be used to indicate future job needs. Maurice Gershenson (1965) gave the following projections for California's civilian labor force from 1965 to 1980:

1965 - 7,378,000
1970 - 8,676,000
1975 - 10,101,000
1980 - 11,535,000

In 1960, California had 8.9 per cent of the nation's total labor force. According to Gershenson's projections, California's share of this total labor force will be 11.7 per cent by 1980. Estimates of the national labor force made by Darmstradter (1966) are shown in the chart below. Industrial distribution of civilian employment is indicated in part.

Labor Force and Industrial Distribution of Civilian Employment

Item	1964		1975	
	Millions	Per cent	Millions	Per cent
Total civilian employment	70.36	100.0	86.85	100.0
Agriculture	4.73	6.7	3.53	4.1
Forestry, fisheries	.06	.1	.05	.1
Private households	2.68	3.8	3.46	4.0
Mining	.54	.7	.48	.6
Contract construction	3.90	5.5	5.19	6.0
Manufacturing	18.35	26.1	22.32	25.7
Public utilities	4.15	6.0	4.19	4.8
Trade	13.44	19.2	16.09	18.5
Finance, insurance, real estate	3.20	4.5	4.62	5.3
Services	9.91	14.1	13.68	15.6
Government	9.40	13.3	13.26	15.3

By 1970, there will be 30 million women workers, six million more than in 1960. This represents a 25 per cent increase for women, as compared to a 15 per cent increase for men. One out of every three workers will be a woman (Quinn, 1962).

Sonenblum (1965) presents California employment projections by industry for the years 1965, 1970, and 1975. Sonenblum's projections are based on three economic levels of growth for California. The book California's Future Economic Growth by Hirsch and Baisden (1965) also gives employment projections.

Haase (1966) foresees that technological innovations during the next 10 years will affect health services. These developments fall into the following categories:

1. Equipment and techniques used in diagnosis and patient care
2. Changes in hospital supply and services
3. Improvements in hospital information handling
4. Improvements in the organization and design of health facilities.

In spite of the increases in production expected in industry, total employment in health services was expected to increase by over 30 per cent from 2.65 million (1965) to 3.50 million (1975). Haase claims that the results of innovations and their effect on manpower requirements can be foreseen with a fair degree of accuracy for five years or, in most cases, ten years ahead.

Ullman (1963) cautions against placing too much reliance upon unemployment estimates. He compared 1960 unemployment estimates with 1960 census information and found considerable variance by states and in large cities.

Gordon (1964) selected statistical information from six representative years within the 1943-1963 period. Findings show that no major changes had taken place in the percentage of total unemployment contributed by various types of industry. Non-white unemployment has not contributed an increasing share of the total unemployment. Since 1956, the fraction of total unemployment attributable to persons with less than 12 years of education has declined, while the fraction attributable to persons with 12 or more years has increased.

FOUNDATIONS OF CHOICE

Interests

Krippner (1962) conducted a study of the vocational and educational interests of 351 seventh and eighth grade students from the upper-middle socioeconomic class of a Chicago suburb. It was noted that 85 per cent of the girls and 91 per cent of the boys wanted to attend college. About 12 per cent of the boys were influenced to follow their father's occupations. Influence of mass media on vocational interests were claimed by 10 per cent of the students. Girls in this sample chose the following occupations in order of preference: teacher, secretary, nurse, stewardess, and model. Occupations most frequently selected by the boys, in order of preference, were: engineer, scientist, doctor, athlete, and lawyer.

A follow-up study (Johnson, 1964) was made of 201 students who had been in ninth grade in 1960. Eighty per cent of the students' high school programs of study were judged to be harmonious with measured interests and aptitudes. Examination of forty dropouts led to the conconclusion that occupational choices had been incompatible with measured

interests and aptitudes. The investigator viewed occupational choice as involving aptitudes, interests, and basic personality structure. General intellectual level was found to be the most important variable in predicting potentially satisfactory occupational choices. Aptitudes were found to be more stable for the ninth graders than either interests or level of maturity. Level of maturity was considered in terms of self-understanding and self-acceptance.

Using an interest inventory with 2,000 high school and post-high school students enrolled in trade and technical training programs, Silverman (1965) found that students enrolled in eight different curricula described as trade and technical training programs could be differentiated. The interests of these students were found to be significantly different from the measured interests of a male and female academic reference group.

A follow-up study (McRae, 1963) was made of the measured interests of students in 31 states seven to nine years later. Persons in jobs compatible with earlier measured interests expressed a greater degree of satisfaction with their jobs than did individuals in jobs not compatible with earlier measured interest.

Life history information was compared with Strong Vocational Interest Blank data from agricultural and engineering freshmen of Purdue University (Chaney, 1963). A strong relationship was shown between life history keys and the interest scales. Examination of placement in relation to life history showed that approximately 85 per cent of students who did not drop out of agriculture and engineering curricula were correctly placed.

Crites (1963) studied vocational interest in relation to vocational motivation of undergraduates. Each interest area of the Strong Voca-

tional Interest Blank was associated with a different motivational pattern. The results suggest that the type of vocational motivation rather than the strength of vocational motivation are related to interests.

Interest of 103 bankers studied in 1934 were compared with 103 bankers who today held the identical positions (Campbell, 1966). The Strong Vocational Interest Blank showed a marked likeness of measured interests in the two groups. Subjects from the early group of bankers were retested and a striking consistency of interests was noted after the thirty year interlude.

Sprinkle (1962) examined permanency of measured occupational interest in relationship to socioeconomic status. The subjects in the study had been tested with the Strong Vocational Interest Blank as freshmen and sophomores in college. After graduation, they were re-tested with the Strong Vocational Interest Blank, and test-re-test profiles of each subject were compared. No relationship of permanence of occupational interest to socioeconomic level was formed in this particular study.

Harlan (1965) found that college freshmen, trade school students, technical school students, and business school students can be differentiated one from another by their responses on a Personal History Inventory.

Parents

A follow-up study by Robins (1966) was made of 528 Negroes who were enrolled in one of the 18 elementary schools in the St. Louis, Missouri area during the school year 1937-1938. It was found that those students

who had guardians with high-level jobs had relatively few academic and behavioral problems. Schools ranked highest in socioeconomic status served students of homes with the greatest number of fathers present. In this study, two social conditions were identified with adequate academic performance: being born to white collar working parents and being born in a northern state.

Larson and Olson (1963) present a series of tests they used in identifying culturally deprived kindergarten children. Some of the instruments used in the study with the kindergarten children were the Illinois Test of Psycholinguistic Abilities, Symbol Recognition Test, Teacher's Screening Tool, Body Type-Self Measure, Impossible Question Test, Sex and Race Self-Measure, Parent Questionnaire, General Information Test, House-Tree-Person Test, and Enrollment Form. They claim the method they use in identification is easily transferrable to the area of curriculum development.

A study of parental identification in relation to the development of vocational interest was completed by Crites (1962). Findings indicated that young adult males identify with their family patterns of attitudes and behavior as well as with the distinctive attributes and characteristics of each parent. The identification with the father is most forceful. The pattern of identification may affect the masculinity-femininity of an individual's interests, but the evidence is inconclusive.

Aspiration

Male high school graduates non-college bound and high school withdrawals were compared (Seavitt, 1966) six to twelve years after the graduation of the high school classes of which they had been members.

The high school non-college bound graduates tended to have higher status employment and also aspired to higher status jobs than did the non-graduates. There appeared to be no relationship between type of high school course taken and subsequent type of employment.

White ninth grade students from 216 Florida schools participated in a study to determine the effects of community size upon occupational aspirations (Grigg, Middleton, 1960). When the factors of intelligence and father's occupation are controlled, there was no relationship between community size and aspirations of female students. When these same factors are controlled for males, there was a relationship between community size and level of aspiration. As the size of the community increases, the level of occupational aspiration increases for the male youth. The investigator suggests that this finding may account for the greater mobility of urban-bred youths compared with rural-bred youths.

Haller and Butterworth (1960) studied peer influence on occupational and educational aspirations. The study confirmed the findings of others that educational aspiration is not as stable as occupational aspiration. The findings showed no interaction with peers as tending to influence levels of occupational and educational aspirations.

Aspiration levels of male high school students with high I.Q. scores were examined in relation to the motivational direction provided by parents (Bell, 1963). Adolescent boys whose parents provided high aspirational motivation tended to have higher ambition levels than those who received low motivation. Parental motivation was found to be a better predictor of high ambition than was the social class position of the boys.

Sewell and Orenstein (1965) studied the relation between size of community and occupational choice of Wisconsin youth. The factors of

sex, intelligence, and socioeconomic were controlled in this study. It was found that boys, but not girls, from rural areas had lower occupational aspirations than those from larger urban areas. The community-of-residence differences in occupational choice were greatest among those of low intelligence and high socioeconomic status. It was found that the occupational alternatives for girls in rural communities were severely limited and forced them to join the urban labor market. The investigators suggested that the lower occupational aspirations of rural youth may be, in part, due to the limited educational opportunities found in most rural communities. Similar findings are reported by Boyle (1966). Boyle also found that peer group and socioeconomic level are factors influencing levels of aspiration in high school students. Anthony (1965) compared students in terminal and transfer programs in three selected junior colleges in Texas. Partial findings indicated that:

1. Terminal students tended to come from lower socioeconomic levels.
2. Terminal students aspired to levels of occupational status less high than did transfer students.
3. Social status and prestige of occupations were more important to transfer students than they were to those in terminal programs.
4. Academic rank in class did not differentiate between the terminal and transfer student.
5. Terminal students, more so than transfer students, tend to come with a vocational high school background.

A longitudinal study (Kuvlesky, 1965) was made of the occupational aspirations and job placement of rural Pennsylvania male youth. It was found that aspirations were important to subsequent occupational attainment but were by no means a guarantee of that attainment. Aspirations

were not a good predictive device for long range attainment. Formal education was the most important variable influencing attainment or non-attainment of aspirations.

Through use of a questionnaire and interview, Uzell (1961) investigated the occupational aspirations of Negro male high school students in urban eastern North Carolina. The findings indicated a high positive relationship between level of student aspiration and educational status of parents and between a student's success in school and the level of his occupational aspiration.

Sprey (1962) examined the sex differences in aspiration and occupational choice patterns among Negro adolescents. The survey of over 2,000 students showed:

1. That the occupational aspiration level of Negro boys was below the aspirational level of white pupils and Negro girls.

2. That white and Negro girls tend to show higher measured levels of occupational aspiration than boys in the respective racial groups.

3. That southern upbringing seems both to influence and to solidify ambition and the curriculum choice to a greater extent for Negro boys than for Negro girls.

4. That the proportions of pupils aspiring to rise above the parental occupational class level tend to be inversely associated with the occupational position of parents.

5. The total Negro minority is exposed to a condition of anomie; but the Negro male faces a more unbalanced set of role expectations than his female counterpart. Negro men experience a higher degree of anomie than do Negro women. (Note: the term "anomie" refers to an acute disjunction between cultural norms and goals and the capacities of members of a group to act in accord with them.)

Maturation

Gribbons and Lohnes (1965) reported the results of interviews with 110 students in eighth, tenth, and twelfth grade. The scores in Readiness

for Vocational planning were similar in the tenth and eighth grade. The investigators believe this suggests an early maturation of some aspects of vocational self-concepts. By contrast, Lo Casio (1965) found that vocational maturity in the ninth grade was not related to subsequent implementation of vocational preference. Only 12 per cent of the students implemented their first preference when leaving. Factors that were found to effect the implementation of vocational preference were intelligence, parental occupational level, cultural stimulation, school curriculum, and school achievement.

Montesano and Geist (1964) tested the following hypotheses underlying current theory of vocational development.

1. Vocational choice-making results from and is interwoven in a maturational process.

2. The process of vocational choice-making proceeds in an identifiable and possibly predictable direction.

If such developmental aspects were to be verified, differences between individuals could be found at different age levels and at different levels of schooling. Also, differences could be found in such factors as interests, abilities, job requirements, and prestige. Two groups of thirty boys each in grades 9 and 12 were equated for "reading ability," "verbal ability," and father's socioeconomic status. The findings reported here showed:

1. The ninth graders indicated little status consciousness in choice-making, and one or two major reasons for choice-making. They indicated pay to be the principal reward and showed little concern for advancement. They used interest and need satisfaction as the main determinants of choice.

2. The twelfth graders indicated that their concerns in choice-making were happiness on and resulting from the job, that the job suited them, the money and prestige as reward, and used interests, abilities, conditions of work, occupational requirements, job opportunities, and fringe benefits as determinants in choice-making.

Miller (1965) investigated the rate and degree of vocational interest maturity of 1,092 adolescent boys between the ages of 13 and 18. Between these ages, boys become vocationally more mature in terms of measured interests. Degree of interest showed positive gains each year, but not at the same rate. Between the ages of 13 to 14, and between 17 to 18, the greatest increase in vocational interest took place.

In a study of twelfth-grade boys, (Tetreau, 1965) it was found that intelligence was a factor that determined the relationship between accuracy of self-knowledge and realism of vocational preference. An individual's intelligence also influenced the relationship between open-mindedness and realism of vocational preference. The more open-minded the individual, the more accurate he will be in his perceptions of vocationally relevant personal characteristics. As the adolescent increases in age, he increases his awareness and integration of various aspects of reality. Stockin (1964) found that intelligence and self-evaluation had equal importance in the determination of occupational level.

Changes in vocational behavior may be effected by changes in age. Hall (1963) claims that we do not know nearly as much about the function of age as we need to know in order to feel at all comfortable with our present theoretical statements about vocational development and vocational maturity. He administered the experimental form of the Vocational Development Inventory to 800 males and 725 females in grades 10 through 12 attending Iowa schools. In using the Vocational Development Inventory, he found that students were more similar then different in their vocational behavior. Research needs to be repeated using other measures or

observations of change.

Attitudes

Sorenson and Morris (1962) found that attitudes of junior high students, whether caused by adequate information, misinformation, or fancy do play an important part in the career inclinations of ninth grade students. They also noted that the high aspiration levels of these students was not yet lowered since the work experience was generally limited. "Pay" was for boys a stronger determinant of occupational choice than it was for girls.

One group of individuals were aware that they would be subjects in a twenty year study (Chatel, 1964) of vocational development. The group that was aware of the study was similar in age, general intelligence, socioeconomic background, and educational and vocational aspirations to a control group not aware of the study. At follow-up study intervals of three and seven years after high school, both groups held jobs at similar occupational levels. It does not appear that knowledge of the participation in the vocational development study had an effect on subject's career development.

The relationship between attitudes toward self and attitudes toward a vocational high school was examined by Silverman (1963). The study attempted to find out whether students with high self-regard dislike the "low-status" school and students with low self-esteem liked the "low-status" institution. No such relationship was found. However, other attitudes were noted: the boys believed academic high schools were for the bright and vocational high schools were for the lower-verbal-ability students. The pupils in the study (sophomore and junior boys)

had a low-regard for:

1. Vocational high school students
2. Vocational high school teachers
3. The value of their terminal curricula

The students believed that the vocational high school and its students have been relegated to second place by the public.

A study of some behaviors and attitudes relating to occupational choice was developed by Marr (1964). Subjects of the study had been ninth graders in 1952. The characteristics of their occupational choice that were studied were time of dicision, self-direction in choice, certainty about continuing in a choice and factors considered in making choices. All the above characteristics were examined in relation to father acceptance and the subjects' self-concept. Ninety-six of 129 subjects had made a "choice," which was described as entry into an occupation in which the individual intended to remain. The 96 showed the following breakdown:

Time of decision - 23 decided before the 12th grade; 38 decided during the first three post-high-school years; 35 decided within the following four years.

Self-direction in choice - 39 were self-directing in choice; 31 were somewhat non-self-directing; 26 were definitely non-self-directing. It was noted that early vocational choice was made by the subjects who were most self-directing. Choices were made later in life by the "somewhat-self-directing" subjects, while no trend was seen in the number of years it took for the definitely non-self-directing.

Certainty about continuing in a choice - 26 were certain; 42 wished to continue; 25 were lukewarm about continuing and 3 wished to change. It was noted that those most certain about continuing in their occupational choice (26) had decided early; those wishing to continue (42) had decided late.

Factors in making choice - Those in occupations they most desired (26) considered their interests in making choices; wages and interests were considered by those who wished to continue (42) while those lukewarm about continuing in choices (25) considered wages, security, and interest.

Influence of others - 25 subjects reported choices influenced by parents; 12 subjects were influenced by someone other than a parent, while three reported choices as influenced by both others and parents.

Acceptance of father - 34 subjects did not have a father toward whom they held a positive attitude, and of these 34, only 15 had made a choice. Of the 89 subjects who accepted their fathers, 77 had made a choice. Acceptance of father appeared to be unrelated to self-direction and time of decision in making vocational choices.

Self-concept - The self-regard of subjects classified as "definitely non-self-directing" was lower than that of "self-directing" and "somewhat-self-directing." Lower self-regard was noted in subjects "lukewarm" about continuing their vocational choice as well as in subjects who wished to leave their occupation. No difference in self-regard was seen in subjects who were "certain" of continuing their choice and those who "wished" to continue their choice.

A questionnaire was sent to freshmen male students whose parents were engaged in farming or who worked in related farm jobs (Strait, 1964). The study focused on finding some determinants in the process of choosing an agriculture college rather than some other college. The responses of students were organized under the headings:

1. General background
2. Opinions about agricultural careers
3. Opinions about agriculture in general

All responding students were classified as those "intending to major in agriculture" or as those "intending to major in other than agriculture." When the responses of the two groups of students were examined, it was found that the following findings appeared, in part, to influence

students to enroll in the agriculture college:

1. High school study in agriculture
2. A belief that farming is only a part of agriculture as a group of productive enterprises.
3. The belief that more science in agriculture will be needed in the future.
4. A belief that employment in agriculture is sure.
5. Awareness of careers available to graduates of a college of agriculture.
6. The belief that agriculture needs people trained in mathmatics and science.
7. The influence of parents.

A group of young adults were studied to determine problems of occupational adjustment (Ruff, 1963). Factors that affected the scores of occupational adjustment for men were high school course of study, church attendance, and socioeconomic status. Factors influencing the adjustment scores of women were marital status, children, and number of previous jobs. The factor "level-of-schooling" affected the occupational adjustment scores of both the men and women.

Simpson and Simpson (1962) interviewed 380 workers in two middle-sized southern cities. The investigators found that:

1. Those who had non-family "main-advisors" in matters of occupational choice tended to have higher ranking first jobs than those whose "main-advisors" were family members.
2. The source of the advice one had when seeking the first job did not effect subsequent career mobility patterns.
3. Interpersonal relations determined occupational motives more than occupational motives determined interpersonal situations.

Prestige

Ramsey and Smith (1960) obtained information from seniors in

Japanese and American high schools in large cities concerning the prestige of certain occupations. Comparison of responses shows a similarity of rankings of occupation in the two countries. Prestige rank of six of twenty-three occupations follows:

Japan Rank	Occupation	American Rank
1	College professor	4
2	Doctor	1
3	Lawyer	2
4	Corporation Executive	5
5	Author	6
6	Union Leader	8

Caro and Philblad (1965) examined likely sources for social class differences in occupational orientation of male metropolitan high school students. Findings through questionnaires noted that student perception of prestige, structure, and accessibility of given occupations tended to accentuate social class differences in orientation towards occupations.

Clarke (1965) studied the occupations chosen and rejected by middle- and lower-class boys and girls. He found that the occupations chosen by middle-class boys and girls as well as lower-class boys were superior in status to the occupations rejected. However, this was not true of lower-class girls.

Values

Grubb (1965) found that programmed materials can influence vocational values. The programmed textbook Values and Choices was used with eight groups each containing 48 full-time students from southeastern Ohio. Eleventh and twelfth grade males and females who used the programmed textbook, Values and Choices, valued the self-realization aspect of work more than students not using the programmed material. Female students valued altruistic aspect of work more than did the males. Eleventh and

twelfth grade males reflected the following values: freedom on the job, money paid, prestige of work, and control aspects. To twelfth graders, control was a more valued aspect of work than to eleventh grade males and females.

Bentley (1965) investigated the value differences between adolescent boys and their fathers. The boys were selected from three Minneapolis high schools representing high, middle, and low socioeconomic levels. The traditional values are work-success-ethic, future-time-orientation, independence, and Puritan morality. The emerging values are sociability, present-time orientation, conformity, and relativistic morality. The adolescent boys tended to have more of the emerging values than their fathers. It is not clear whether this finding supports the assumption that the basic value structure of our society is changing. Boys oriented toward traditional values tended to choose higher level occupations than did boys oriented toward emerging values, but these value differences were relatively unimportant when occupational choice variables were considered. Bentley concluded that value acquisition and occupational choice are complex psychological processes, with interrelationships that are not entirely clear at present.

Searle (1962) studied the stability of vocational values in relation to the stability of vocational choice. The responses of male and female subjects tended to reflect the idealized. No value was peculiar to the selected populations of drop-outs, graduates, or current students of a given university. In this sample of 311, values held by "changers" and "non-changers" did not differentiate between the three populations.

Bernardoni (1963) studied some of the factors which influence the process of vocational choice of Apache male students. Factors that had

a definite influence on the young Apache's vocational plans were:

1. The isolation of the reservation thus not knowing much about other occupations.
2. A high number of unemployed parents.
3. Lack of communication between young Apache and parents.
4. Apache work value on monetary gains rather than intrinsic value.
5. Apache time value for present rather than future orientation.
6. Large number of broken homes.
7. A general identification with the Apache culture.

Achievers

Ozoglu (1965) developed a comparison of vocational choice between junior high school "achievers" and "underachievers." "Underachievers" were described as students with test scores at the twentieth percentile (and above) in scholastic ability and at the sixtieth percentile (and below) in reading comprehension. "Achievers" were students at the twentieth percentile (and above) in the tests selected. This comparison showed the vocational choices of "achievers" as stable in harmony with learning ability, interests, achievement, and parental occupational ambitions. Also the "achievers" had a viewpoint of guidance more like the counselors perception of the function of guidance. The "underachievers," while quite opposite in the above descriptions, did use occupational information more, used tests, scores, and counselors less and saw class work as less important in attaining vocational goals than did "achievers."

Motivation

Based on individual self-estimates, measures of achievement motivational and avoidance motivation were combined to give a single index of "resultant motivation." Morris (1965) tended to show that individuals with high "resultant motivation" tended to choose occupations within fields of high probability of success and to make choices in keeping with their inventoried interests. Individuals low in "resultant motivation" tended to make choices in fields of low probability of success and to make choices not compatible with their inventoried interest. This study noted the unrealistic nature of the vocational choices of individuals low in "resultant motivation" and also low in intelligence scores.

A survey of high school students by Powell and Bloom (1962) endeavored to determine the objectivity of and motivation behind student vocational outlook. The study indicated a high reality orientation, that responses reflected culture experienced, and that the urge for independence was a key factor in the vocational choices.

Hoffmann (1964) investigated personality needs associated with occupational aspiration groups and aspiration level. The groups were described as:

1. Technical and science
2. Business contact and organization
3. Service and general culture

Levels were labeled as:

1. Professional and managerial
2. Semi-professional and small business
3. Skilled and semi-skilled

The subjects in the study were veterans who had applied for educational-vocational counseling. The following findings were noted:

1. Veterans selecting the highest job level showed "greatest need for dominance."
2. Subjects selecting the lowest level of occupations showed the "greatest need for abasement."
3. Veterans showing "greatest need for change" selected high level technical and scientific occupations.
4. Subjects with "least need for change" selected low-level service and general culture jobs.
5. The veterans indicated that their preference for level of job paralleled their level of educational attainment and measured intelligence.

Self-Concept

Oppenheimer (1964) examined 81 liberal arts students in order to test the use of the self-concept approach to predicting occupational preference. The study suggests that:

1. Students prefer occupations they believe agree with their self-concepts.
2. Students' level of self-esteem is related to the degree of congruence between self-concepts and occupational preference. Subjects consistently ranked occupations on the basis of personal preference and social prestige, which was found to be positively related to the degree of similarity between self-concepts and occupational preference. The process of "utilizing" self-concepts in the making of vocational choices was neither less accurate nor more difficult for the simple intelligence than for the complex intelligence.

To Indian Children, "The atmosphere of the American school is painful, incomprehensible, and even immoral" (Was, 1964). Thus, the notions the Indians have as to careers that are possible and desirable are sometimes much different than the ideas of educators. Where this difference of opinion is great, the school drop rates are high. To conservative

Indians, education is perceived as a means of transmuting their children and their people into "whites." This purpose of education is generally rejected, because their identity as Indians is the last and most valuable treasure remaining to them.

Stages of Occupational Choice

Harren (1964) in a study of the vocational decision-making process used Vocational Decision-Making Q-Sort with 86 liberal arts undergraduate men. The study suggests that it is possible to tell which stage Exploration, Crystallization, Choice, or Clarification a student has reached in deciding about a field of study or an occupation.

An end-of-year study at the University of North Carolina (Little, 1965) was undertaken to determine existent vocational plans and the educational-vocational problems of 607 male freshmen and to analyze factors that might be related to occupational choice and to academic success. The findings by way of questionnaires indicated:

1. Seventy-seven per cent had made a vocational choice.
2. Thirteen per cent were undecided between choices.
3. Ten per cent had made no choice.
4. Students mentioned the following most frequently as obstacles to academic progress: weak study habits, shallow high school background, and reading.
5. About 3 per cent indicated serious doubts about graduating.
6. Only 10 per cent of subjects having made a vocational choice reflected lack of confidence in succeeding on the job chosen.
7. Students with higher grade-point average were associated with two or more vocational choices.
8. "High achievers" and "low achievers" did not differ in the "way" they made occupational choices, the types of choices made, nor their confidence in their choices.

This study (O'Connell, 1964) attempted to discover the influences bearing upon the occupational choices of 1,270 male liberal arts college students at a New York City college over their four years of college. The sample was arranged in four groups -- "changed" occupational choice, "refined" occupational choice, "stable" in occupational choice, and "no occupational choice" made while in college. The four groups were examined with the hope that family, education, or environment factors would be found which in turn might partially explain the difference in the four groups. The findings by group were as follows:

"Changed" occupational choice

1. Percent of change increased for those who changed as they progressed from freshmen to seniors.
2. Subjects who changed during college years were usually in the Division of Arts. Their inventoried interests were in areas of the outdoors and the artistic while their lowest interest was literary.
3. As entering freshmen, those who changed reported that their occupational choices were not influenced by parents, marks, subjects, counseling, career days, and friends.
4. Students who changed indicated that their current occupational choices had been influenced by part-time work, summer experiences, and self-analysis.

"Refined" occupational choice

- Those who refined their occupational choice were in science and business curricula and had high intelligence test scores. As entering freshmen, they reported that their occupational choice was influenced by high school marks, high school subjects, counseling, and long-established interest in their occupational field of choice.

"Stable" occupational choice

1. The group whose choices remained stable were younger and had low intelligence scores. Their inventoried interest was computational, and most were in a science curriculum.
2. As entering freshmen, this group reported that they were influenced in choice by the parents, high school marks and subjects, counseling, career days, friends, and students.

3. This group indicated that their current occupational choice had been based upon wages offered.

"No" occupational choice

This group, who had made no occupational choice upon entering college and who made no choice during college, were generally young, in the Division of Arts, had a grade point average below 2.00, and included fewer students who had completed military service.

MacLean (1964), after a survey of Catholic Junior College and University students, concurs with O'Connell in that many students tend to arrive at their occupational choices during college, that work experience assisted many students in making occupational choices, that selected intelligent students are markedly influenced by courses, teachers, and early exposure to fields of occupations.

Vocational Training

Information from three labor market areas (National Committee on Employment of Youth, 1965) indicated that barriers to youth employment were age, education, experience, economic condition of the area, the particular industry, and knowledge of where to apply. Variables that influence training are size of establishment, industries providing finance and goods-producing, high labor turnover, and employer attitudes.

It was found that trainees in two Tennessee counties (Solie, 1965) under the Area Redevelopment Act had a definite labor market advantage over those not having training. It was calculated that those completing training would eventually repay the cost of their training.

An exploratory study was made by Robertson (1965) of the effect of cooperative education programs in beginning occupations. When rated by employers, the cooperative education program did not appear to have any effect on job satisfaction, performance, supervisory responsibilities,

salary earned, stability, and aspirations.

The effects of vocational training on the career patterns of three groups of white, male high school graduates, on the labor market from June 1956 to December 1962, were studied by Bournazos, (1963). The students having had two years of vocational education made up one group. These students were compared with students in two other groups who had had little or no vocational education in public and parochial schools respectively. The students with vocational training had greater job stability than did those graduates who had not received vocational training. It was noted that only 50 per cent of the trade and industrial graduates were currently in jobs related to their specialized training. The former students who had received higher grades were more likely to have higher wages. Wherever the father belonged to a particular occupational group, his son was also likely to belong. Military service did not appear to have an important effect on vocational preparation. Fifty per cent of trade and industrial graduates were in jobs unrelated to their specialized training.

A study (Braden, 1964) was made in Lansing, Michigan of female high school graduates with degrees of vocational office training. The graduates with more office training felt better prepared to start work, obtained high-level entering and ending jobs in the office field, and experienced stable beginning career patterns. The overwhelming majority of the graduates in this study stated that if they were to return to high school, they would take office training again.

Trainees (Stanford Research Institute, 1965) between ages 16-21 were given occupational preparation and basic education experiences at the Oak Glen Camp near Riverside, California. The trainees made dramatic

improvements in their reading efficiency. The trainees who stayed and graduated were more likely to find employment after leaving camp than those who quit prior to completion.

Individual Counseling

A series of follow-up studies was made of students two years after graduation from 11 high schools in Konaha County, West Virginia, (Wagner, 1963) to evaluate the effectiveness of employment counseling services. The graduates gained insight into vocational planning from employment counseling, but they were not influenced by employment counseling in planning their educational programs. Employment counseling was found to be most effective during the tenth year and least effective during the twelfth year.

By contrast, Kohout (1963) found no age level that was the best indicator of ten-year occupational activity for two selected groups of Wisconsin youth. The intensively counseled youth were no different from the students who had received no counseling in consistency of occupational choices and aspirations over an extended period of time.

Group Counseling

Two groups composed of fifty students, equally divided by sex, were chosen from the entering freshmen class of 1962-63 at Modesto Junior College (Green, 1964). Group I was composed of students having intensified vocational counseling programs, including six weeks of group guidance. The school counselor assemed primary responsibility but was assisted by classroom teachers. Group II students received vocational guidance in units of work offered periodically as a part of the class-

room curriculum. In this group, the classroom teacher assumed primary responsibility. Students in Group I made a much higher proportion of realistic vocational choices than did those in Group II when the American Council of Education Psychological Examination and Counselor Judgment were used as determiners of realism. The students in Group I were not found to be more decisive nor definite in their vocational choices than students in Group II.

During a four-year period, a group of senior students each year was given an occupational orientation program (Rosengarten, 1962). A follow-up on the students showed that those students who had received the orientation program received higher weekly pay, tended to reflect more continuous employment, experienced greater job satisfaction, and received better ratings by employers.

Duncan (1961) investigated the comparative effectiveness of group and individual vocational counseling. Duncan concluded that group counseling was equally as effective as individual counseling, and observed that the counselor made more effective use of his time when he employed group counseling as a technique. Swanson (1964) reached similar conclusions when the group method was used in the interpretation of vocational interest inventory material.

Moriwaki (1963) recommended that business education teachers help with the guidance of students. Areas in which teachers could provide assistance are in selecting courses of study, making future educational plans and occupational choices, and solving personal problems.

Toporowski (1961) reports on the effectiveness of an occupational information unit taught by three social studies teachers to high school seniors. Eleven lessons were completed. A follow-up was made of the

students six months after graduation, and those who had received the information were compared with students from the same schools who had not received the information. The findings of the follow-up showed that students who had received the occupational information found jobs more closely related to their measured interests than did students who had not received the occupational information. Those who had received the occupational information were earning more money per month, were more satisfied with their jobs, and had a higher rate of employment at the time of follow-up.

Occupational information was given twice a week for 15 weeks to a group designated as mentally retarded and slow learners (Ryan, 1965). The investigator reported that the group receiving the information tended to develop more realistic occupational aspirations, and that short-range objectives increased in there importance.

Guidance and College

Jobes (1964) found that three out of every four vocational agriculture teachers in Arizona felt that guidance courses should be included in the undergraduate teacher training program for vocational agriculture. A panel of 15 experts agreed on the following eleven guidance activities:

1. Use various news media to inform the students about the vocational agriculture program.
2. Keep a file of catalogs from vocational, technical, and collegiate institutions that offer courses to prepare students for occupations in agriculture.
3. Teach units on the occupations in agriculture.
4. Maintain a library of information about occupations in agriculture.
5. Invite representatives of agricultural occupations to discuss their occupations with the class.

6. Encourage participation in "Senior Day" at the agricultural colleges.
7. Conduct field trips to observe people working in agricultural occupations.
8. Help students in vocational agriculture resolve vocational problems whenever possible.
9. Watch for symptoms of student maladjustment and consult with the student's counselor.
10. Cooperate with the counselor in helping students resolve problems.
11. Maintain a list of possible jobs in agriculture for students desiring job placement training.

Steinman (1966) believes the college counselor should help college girls plan programs that would help them follow their intellectual and vocational interests after marriage. This researcher noted that female college graduates working outside the home are more content with the uses of their education than are college graduates who remain at home (Falk, 1966).

Roles

A study of selected New York high school guidance programs (Babcock, 1964) was made with 90 counselors cooperating. Information revealed that male counselors were more likely than female counselors to provide the following services: assist dropouts with job placement, initiate exit interviews with dropouts, maintain lists of local hiring officers, and make personal tours of local industry. Counselors in this group who were former "non-academic" teachers had a greater tendency to make periodic community occupational surveys than did counselors who were formerly teachers in academic areas.

Wiley (1963) examined the guidance role of ministers as well as

referrals made of young persons needing help in choosing their life-work. Ten true-to-life situations were selected and four groups of people were asked to whom they would have referred youth with problems in selecting their life-work. The four groups participating in the study were ministers, guidance counselors, parents, and senior high school students. The four groups indicated that:

1. When the problems relate to long-term work selection, counselors and parents were generally selected for referral. Ministers gave themselves a role in this procedure; others did not.

2. When short-term selection problems were involved, counselors and parents were generally selected. All but counselors gave ministers a minor role.

3. When there were no selection possibilities, counselors and parents were again selected. Ministers gave themselves an important role; students gave them a minor role.

4. When selections were being considered or made because of their prestige, counselors and parents were selected. Ministers gave themselves an important role; all others gave them a minor role.

5. When selections were made because of their worthwhileness, ministers and counselors were generally selected.

6. When selections lacking prestige were made, counselors and parents were selected. Ministers gave themselves an important role. Other respondents gave them a minor role.

7. In problems involving unrealistic choices where the young person was aiming too low, counselors were generally selected. Ministers gave themselves a role; others did not.

8. In problems involving unrealistic choices where the young person is aiming too high, counselors and parents were selected. Ministers gave themselves an important role; others did not.

9. When a young person apparently has a call for church work, ministers and parents were generally selected.

10. When young people were interested in entering church work but apparently did not have a call, ministers and parents were again selected.

JOB SATISFACTION

Dimensions of Job Satisfaction - Conditions, Attitudes, Measurement, Demography.

Working Conditions

Many research activities concerning job satisfaction are based on objective measures of productivity. Rosen and Sales (1966) determined that a factory research activity had negligible effects on productivity. The research activities did have slight effects on productivity when the factors of age, authoritarianism, rural-urban background, and union activity level were considered.

Parker (1965) offers the following theoretical model of work group behavior. The model incorporates three dimensions: motivation, worker autonomy, and leadership climate.

Work Situation Condition		Hypothesized Work Group Behavior			
Work Motivation	Worker Autonomy	Leadership Climate	Productivity	Work Quality	Attitudes toward Superiors
HIGH	High	Considerate	High	High	Favorable
		Inconsiderate	High	High	Unfavorable
	Low	Considerate	High	Low	Favorable
		Inconsiderate	High	Low	Unfavorable
LOW	High	Considerate	Low	High	Favorable
		Inconsiderate	Low	High	Unfavorable
	Low	Considerate	Low	Low	Favorable
		Inconsiderate	Low	Low	Unfavorable

Korman (1964) isolated the dimensions of job satisfaction for two groups of semi-skilled blue collar workers. The dimensions found in both groups were satisfaction with supervision, satisfaction with physical working conditions, company considerations, and company in general. Dimensions that failed to show up as sources of job satisfaction were satisfaction with wages, satisfaction with co-workers, and satisfaction of the need for "self-actualization."

Spitzer (1964) found that the more goals an employee attained in an industrial setting, the greater was his over-all job satisfaction.

A survey of supervisory-management personnel was conducted by the editors of Machine Design (Raudsepp, 1966). Three-fourths or more of the 500 responding to the survey rated the following factors related to job satisfaction: jobs provide enough variety; opportunity to solve problems, to earn the respect of associates, to learn new things; a friendly working atmosphere; and "real enjoyment and satisfaction."

Bollweg and Garbin (1963) in a study of blue collar workers in a meat packing plant, found that the opportunity for within-plant transfer increased worker morale. The mean age of the subjects was 42. Over half of the sample were white males. The next largest portion of the sample were Negro males. Results of the study showed that workers initiating plant job change tended to move "upward" in rank while there was less "upward" movement by workers whose transfer was initiated by the company.

Wolfe and Snoek (1962) studied tensions produced by stresses in industrial organizations. Role pressures are pressures exerted by other members in adjacent positions in the organizational structure. The subjects interviewed held varied managerial jobs. Incomplete analysis of

data indicated that:

1. Strong role pressures seem to arouse a high level of tension in the individual.
2. Persons were found to use maladjustive reactions such as aggression, withdrawal, and rejection in coping with the situation; these reactions impaired productivity and efficiency within the firm.

An electronic firm changed its organization to eliminate staff-line conflict. (Dalton, 1966). This was accomplished by assigning each individual a specific authority, by obscuring status symbols, and by stressing symbols of science, quality, and service. These measures were supplemented by filling lower line posts with young, technically trained college graduates and giving them pay and rank uncommon for their age with the expectation that they be uncommonly cooperative and adaptable. These actions increased staff-line harmony and increased production.

The investigator Hamblin (1964) served as a regular employee under two supervisors in a small concrete-products company. One of the supervisors used punitive supervision and the other used non-punitive supervision. The employee turnover was considerably greater under the punitive supervisor than under the non-punitive supervisor. The productivity was also slightly greater under the non-punitive supervisor, than under the punitive supervisor.

A sterotype that foremen were brutal was determined in a Scottish heavy industry. An attempt was made to change the sterotype by having the men investigate the evidence for their complaints (Sykes, 1964). The active members of the union did decide that the stereotype was false but were reluctant to admit this until the trade union leader, the branch secretary, openly stated that it was so. The men slowly changed their

attitudes toward this stereotype, but they offered contradictory rationalization. They claimed that they had always known that the foremen were "all right" and that the foremen had changed for the better.

Mahoney (1964) sought to measure the compensation preferences of managers in three corporations. In all three corporations, almost all managers desired compensation increase in the form of salary increase. The results of the study suggest that there is limited desire for many newly developed forms of non-salary compensation.

Managers felt their own pay was too low. In addition, they felt that the pay of both their subordinates and their superiors was too close to their own pay, Lawler (1965). The managers tended consistently to overestimate the pay of their subordinates. The investigator suggests that the overestimation tendency of managers may partially explain their dissatisfaction with their own pay.

Work rules are designed to protect the rights of the employee against unfair management practices, but sometimes work rules may limit the efficiency of a firm. Almost all executives responding in this study (Reighard, 1963) claimed that employee profit-sharing plans are rated very successful. Although increased efficiency was not an objective for the adoption of profit-sharing plans, many firms found that after the introduction of profit sharing the number of work rules declined or, in some cases, disappeared.

Rubber industry employees working a 36-hour work week were compared with two worker groups working a 40-hour work week (Dieter, 1965). Twenty-nine per cent held multiple jobs in the 36-hour work week group; seventeen per cent in the 40-hour group held other jobs. The multiple jobholders were employed about 21 additional hours per week and earned an additional

$2,800 a year. Factors influencing multi-job-holding were primary job tenure, income, and number of children. The main reason given for moonlighting was economic - the need to supplement their living standard.

A company initiated individual incentives for a group of 15 transcribers (Jehring, 1966). Productivity increased slightly during the incentive program and dropped slightly after it was discontinued. It was thought that the individual did not believe the incentive plan was worth the effort.

Attitudes

Kendall (1964) studied many variables that may affect job satisfaction. He concluded that no possible combination of satisfaction measures alone is related to any possible combination of behavioral measures. It was found that high quality of performance along with high rate of absences was associated with a combination of satisfaction and personal background data. Satisfaction with the job and with life in general is associated with evidence of financial security. A careful examination of records and the dismissal of constantly absent employees helped to reduce absenteeism in a hospital (Kliesch and Wheeler, 1966). Preventive health education and follow-up after an illness also helped in the reduction of absenteeism.

Kirchner (1965) studied attitudes toward work and job performance of outdoor advertising salesmen. Results indicated that persons with more favorable general work attitudes are better salesmen, or conversely, the better salesmen as measured by objective job performance had better general attitudes. Attitudes toward supervision were directly related to production on the job. As other studies have indicated, money,

whether in terms of benefits or actual compensation, was not particularly related to general job attitudes or to attitudes toward other aspects of work.

A three-year training program for college graduates in science and industry was plagued with the problem of dropouts. These trainees were rotated singly or in groups among the various departments, Evan (1963) found that the dropout rate was greater when the trainees were rotated to a department as one person or as a group of two persons. The dropout rate decreased when three or more trainees were sent to a department. The reason given for the decreased dropout rate when larger groups were used was because of greater peer-group interaction. The investigator suggested a four-man "buddy" system for rotation of trainees to the various departments to reduce the dropout rate.

Walt (1962) developed a comparison of favorable and unfavorable job occurrences for women in high-level professional jobs. Job occurrences were described as job events and their relation to needs and resultant effects on performance, tenure, and attitudes. The investigator noted:

1. "Favorable occurrences," -- satisfying and so encouraging performance, positive job involvement and a sense of continuation -- were described by the subjects as job achievement, working in itself, recognition, responsibility, and interpersonal relations.

2. "Unfavorable occurrences" were described as dissatisfaction with working conditions, administration, and policies.

3. A rank order of "favorable job occurrences" that met needs was established. The three highest were work in itself, achievement, and responsibility.

4. The rank order of importance given to "unfavorable occurrences" included financial reward, feelings toward one's work, and job security.

A hierachial order was determined on favorable and unfavorable job occurrences. Fifty women holding high level, professional jobs, were subjects of the study (Walt, 1962). The order of the importance of need for favorable job occurrences as work itself, achievement, and responsibility. The tentative order for unfavorable occurrences was "financial reward," "feelings toward work group," and "job security."

Fleishman (1965) reports on a study involving sewing machine operators and attempts to isolate the causes of production drop when changing to a new style. In the experimental phase of this study, a larger pricing committee worked with management in setting a provisional price for piecework. The results seem to indicate that attitude factors rather than skill differences are the major contributor to production drop and recovery at the time of style changes.

Information (Faunce, 1960) concerning supervisory personnel of a mid-western insurance company showed that:

1. Employees with higher social class background and those with an urban background were more likely to have favorable attitudes toward change in job content.

2. Working in an autocratic supervisory climate proved to have a direct relationship to an unfavorable attitude toward change in job content.

3. The higher the job position the more likely one has favorable attitudes toward work-related change.

Survival on the job and job satisfaction of insurance salesmen were studied by Youngberg, (1964). "Survival" was considered to be a matter of adjustment. Measures of "realism" were obtained. The study provided one group of subjects with a job-orientation brochure. A partial report on the study showed that salesmen with "realistic" job expectations and "realistic" self-expectations had better survival records and were more

frequently satisfied with at least one aspect of their job. The experimental group of salesmen receiving the job-description booklet reflected better survival and "satisfaction" than a matched control group of salesmen. The booklet had no effect on "self-realism" scores.

In a study among workers in an aerospace firm, it was found that there was disagreement between the supervisors and subordinates in the perception of the needs for achievement and recognition. (Watson, 1965). The supervisors consistently undervalued the importance of those needs of their employees. For the employees, on-the-job achievement may be an end in itself, whether or not the achievement is recognized by the supervisor.

Lopez (1962) studied supervisor-subordinate relations of the Port of New York. He concluded that in a well-managed organization, neither role consensus nor personality consensus is related to the level of subordinate's job satisfaction; nor to his supervisor's appraisal of his job performance.

The effects of real-life annual appraisal interviews on job performance were reported by Kay and others (1965). The results indicated that a manager's attempt to assist a subordinate by pointing up improvement needs were likely to be perceived by the subordinate as threatening to his self-esteem and to result in defensive behavior. The use of praise by managers did not reduce defensiveness, did not increase goal achievement, and had no discernible effects on attitudes toward manager and the appraisal system. The investigator suggested that managers and subordinates discuss a shortcoming as soon as it is noted. This would tend to prevent the practice of saving up of items to mention during the annual interview, and thus reduce the "overload phenomenon."

Attitudes toward pay by managers from five San Francisco area firms was studied by Andrews and Henry (1963). Study results suggest that higher levels of management and those with more education are less likely to compare their pay with individuals on the same level in their company. In fact, the frequency of out-of-company comparisons tends to increase sharply with education. With increased amounts of formal education, there was greater emphasis on merit as opposed to seniority. A very strong trend was noted that employees are more willing to take a decrease in company-provided security to obtain an increase in pay, and a very strong trend for the choice of increased pay in preference to increased benefits. With an increase in age, the reverse of this preference pattern emerged. Implications of the study suggest individualized pay-benefit programs.

Adams (1963) reports on a series of three experiments involving wage inequities, productivity, and work quality. In one phase of the studies, two groups of university students were hired as interviewers. One group was made to feel that they lacked the necessary qualifications as interviewers but nevertheless were hired. The other group was made to feel that they had satisfactory qualifications as interviewers. The group made to feel unqualified and also treated harshly produced more. An interesting finding derived from the experiments showed that under some piecework conditions, individuals behave so as to earn less at the cost of greater individual effort. They strove for quality though paid for quantity. This finding is contrary to the usual assumption that workers behave so as to maximize their gains and minimize their effort.

Wilensky (1963) investigated a cross section of "middle class" white males working in the Detroit area regarding moonlighting. He

found the best predictors of moonlighting were disorderly worklife, blocked mobility, "life cycle squeeze" and related feeling of deprivation. The investigator believes moonlighting will remain stable for the coming decade.

Measurement

Attitude measurement systems are becoming more sophisticated and powerful. Hecht and others (1965) constructed an inexpensive attitude instrument that isolates five factors. The factors are:

1. Personal attitudes toward immediate supervisors.
2. Attitudes toward employee compensation and benefits.
3. Attitudes toward working conditions.
4. Direct work-related employee evaluation of supervisors.
5. Employee attitudes about company.

Demography

An attitude survey was conducted by Crawford (1964) of public utility employees located in different cities. Findings showed that job attitudes are specific to geographic locations, level of management, and occupational group. The investigator suggests that attitude studies be designed for a specific company and analyzed by location, department, level of management, and occupational group.

Hulin (1966) measured job satisfaction of employees working for 300 rural catalog order stores in relation to community characteristics. It was found that the less attractive the community in terms of slums, prosperity, and productive farming, the more satisfied were the workers with their jobs. Pay satisfaction was the satisfaction factor most strongly

affected by community characteristics and was negatively related to the prosperity of the community studied.

Nealey (1963) conducted a series of studies to measure pay and benefit preference, and concluded that determinants for preferences are of at least two kinds: namely, demographic and attitudinal. For men more than for women preference for pensions increased with increasing age. The preference for both pay and sick leave fell steadily as age increased. The men with children expressed greater preference for hospital insurance and less pension than the employees with no children. Some subjects of the investigation responded to an attitudinal scale concerning promotion, employment, security, wages, and supervision. Persons showing "accepted" response to a given attitudinal scale wanted compensation in the form of a pay raise.

Hopeman (1963) reported on a predictive technique that can predict voluntary employment terminations in industry. A computer program was written based on the following data: birth date, year in which last degree was received, date the individual was hired, present date for employees or termination date for terminees, beginning salary, ending or present salary, marital status, state of orgin, level of educational attainment, and number of companies worked for by the individual prior to joining his present company.

Kornhauser (1963) compared the mental health of occupational groups in the Detroit automobile industry. Mental health, a sense of over-all effectiveness, was better in employees having skilled, responsible jobs having variation, than in employees having less skilled and more routine job positions. The investigator observed that mental health was dependent on factors associated with the job and not in a large way to pre-job

or personality differences. The investigator warns that if we are to understand why mental health is poorer in less skilled, more routine factory jobs, we must look at the entire pattern of work and life conditions of the people in these occupations, not just at a single factor.

BIBLIOGRAPHY

Adams, Stacy. 1963. "Wage inequities, productivity and work quality." Industrial Relations 3, no. 1; 9-16.

Andrews, I. R. and Mildred M. Henry. 1963. "Management attitudes toward pay." Industrial Relations 13, No. 1; 29-39.

Anthony, Donald Maxon. 1965. "The relationship of certain socio-economic and academic factors to student choice of occupation and program in the public junior college." Dissertation Abstracts 25, no. 10.

Babcock, Robert J. 1964. "An analysis of selected guidance programs for students who seek employment immediately after high school." Dissertation Abstracts 24, No. 9; 3627.

Bell, Gerald D. 1963. "Processes in the formation of adolescents' aspirations." Social Forces 42, No. 2; 179-186.

Bentley, Joseph C. 1965. "Relationships between traditional-emerging values and vocational-choice variable." Dissertation Abstracts 25, No. 7; 3962.

Bernardoni, Louis C. 1963. "Critical factors influencing the stated vocational preference of male White-Mountain Apache students." Dissertation Abstracts 24, No. 1; 178.

Bollweg, John A. and A. P. Garbin. 1963. "Intra-plant mobility: Volitional versus non-volitional." Sociological Inquiry 33, Spring; 197-206.

Bournazos, Kimon. 1964. "A comparative study of the effects of vocational training on the career patterns of high school graduates." Dissertation Abstracts 25, No. 1; 261.

Boyle, Richard B. 1966. "The effect of the high school on students' aspirations." American Journal of Sociology 71, No. 6; 628-639.

Braden, Paul Vaughn. 1964. "Effects of high school vocational office training upon subsequent beginning career patterns." Dissertation Abstracts 25, No. 2.

Campbell, David P. 1966. "Stability of interests within an occupation over thirty years." Journal of Applied Psychology 50, No. 1; 51-56.

Caro, Francis G. and C. T. Philblad. 1965. "Aspirations and expectations: A re-examination of the basis for social class differences in occupational orientations of male high school seniors." Sociology and Social Research 49, No. 4; 389-400.

Chaney, Frederick, B. 1963. "The life history antecedents of selected vocational interests." Dissertation Abstracts 23, No. 8; 2974.

Chatel, Marie A. 1965. "The effect of being in a longitudinal study of career development on certain aspects of early vocational behavior." Dissertation Abstracts 25, No. 8; 4808.

Clark, Edward T. 1965. "Status level of occupations chosen and rejected by middle and lower class boys and girls." Psychological Reports 17; 301-302.

Crawford, Paul L. 1964. "Job factors: General or specific." Journal of Industrial Psychology 2; 16-21.

Crites, John O. 1962. "Parental identification in relation to vocational interest development." Journal of Educational Psychology 53, No. 6; 262-270.

Dalton, Melville. 1966. "Changing staff-line relationships." Personnel Administration 29, No. 2; 3-5, 40-48.

Darmstradter, Joel. 1966. "Manpower in a long-term economic projection model." Industrial Relations 5, No. 3; 28-58.

Dieter, John C. 1965. "Multi-job-holding and the short work week issue." Unpublished doctoral dissertation, Western Reserve University; 268 pages.

Duncan, Helen G. 1961. "The effect of group orientation on the outcome of vocational counseling." Dissertation Abstracts 22, No. 2; 487.

Evan, William M. 1963. "Peer-group interaction and organizational sociolization: A study of employee turnover." American Sociological Review 28, No. 3; 436-440.

Falk, Laurence L. 1966. "Occupational satisfaction of female college graduates." Journal of Marriage and the Family 28, No. 2; 177-185.

Faunce, William A. 1960. "Social stratification and attitude toward change in job content." Social Forces 7, No. 3; 140-148.

Fleishman, Edwin A. 1965. "Attitude versus skill factors in work group productivity." Personnel Psychology 18, No. 3; 253-266.

Gershenson, Maurice I. 1965. "California labor force projections 1960-1980: Overview and problems." State Department of Employment, May 13 and 18.

Gordon, R. A. 1964. "Has structural unemployment worsened?" Industrial Relations 3, No. 3; 53-77.

Green, Annie Lou. 1964. "The relative effectiveness of two methods of vocational exploration with high school students." Dissertation Abstracts 25, No. 1; 321.

Gribbons, Warren D. and Paul R. Lohnes. 1965. "Predicting five years of development in adolescents from readiness for vocational planning scales." Journal of Educational Psychology 56, No. 5; 244-253.

Grigg, Charles M. and R. Middleton. 1960. "Community of orientation and occupational aspiration of ninth grade students." Social Forces 38, No. 4; 303-308.

Grubb, James W. 1965. "An experimental study of the influence of a set of programmed materials on vocational values." Dissertation Abstracts 25, No. 11; 6388.

Haase, Peter E. 1966. "Technological change and manpower forecasts." Industrial Relations 5, No. 3; 59-71.

Hall, Donald W. 1963. "The vocational development inventory: A measure of vocational maturity in adolescents." Personnel and Guidance Journal 41; 771-774.

Haller, A. O. and C. E. Butterworth. 1960. "Peer influence on levels of occupational and educational aspiration." Social Forces 38, No. 4; 289-295.

Hamblin, Robert L. 1964. "Punitive and non-punitive supervision." Social Problems 11, No. 4; 345-359.

Harlan, Grady E. 1965. "A comparison of differences in selected characteristics among high school seniors, college freshmen, trade school students, technical school students, and business school students." Dissertation Abstracts 25, No. 9; 5016.

Harren, Vincent A. 1965. "A study of the vocational decision-making process among college males." Dissertation Abstracts 25, No. 9; 5114.

Hecht, Robert M. and others. 1965. "Let's stop worrying about aptitudes and look at attitudes." Personnel Journal 44, No. 11; 616-619.

Hoffman, Stanley. 1964. "Occupational preferences and personality: A study of personality needs associated with occupational aspiration group and level." Dissertation Abstracts 25, No. 1; 295.

Hopeman, Richard J. 1963. "Predictions of voluntary terminations in industry." Dissertation Abstracts 23, No. 8; 2732.

Hulin, Charles L. 1966. "Effects of community characteristics on measures of job satisfaction." Journal of Applied Psychology 50, No. 2; 185-192.

Jehring, J. J. 1966. "The effects on productivity of dropping individual incentives: A case study." Personnel Journal 45, No. 2; 87-89.

Jobes, Raleigh A. 1964. "The role of the teacher of vocational agriculture in the vocational and educational guidance of students enrolled in vocational agriculture in the high schools of Arizona." Unpublished masters problem, University of Arizona, 111 pages.

Johnson, Charles Wesley. 1964. "Relationship of selected characteristics of ninth grade students to their professed or manifest occupational choices." Dissertation Abstracts 25, No. 1; 297.

Kay, Emanuel and others. 1965. "Effects of threat in a performance appraisal interview." Journal of Applied Psychology 49, No. 5; 311-321.

Kendall, Lorne M. 1964. "Canonical analysis of job satisfaction and behavioral personal background and situational data." Dissertation Abstracts 24, No. 10; 4285.

Kirchner, Wayne K. 1965. "Relationship between general and specific attitudes toward work and objective job performance for outdoor advertising salesmen." Journal of Applied Psychology 49, No. 6; 455-457.

Kliesch, William F. 1966. "Absenteeism - A study of controls." Industrial Medicine and Surgery 35; 190-191.

Kohout, Vernon A. 1963. "A longitudinal study of the consistency of occupational choices of two samplings of youth." Dissertation Abstracts 23, No. 12; 4574.

Korman, Abraham K. 1964. "Job satisfaction of the semi-skilled worker." Journal of Industrial Psychology 2; 1-6.

Kornhauser, Arthur. 1962. "Toward an assessment of the mental health of factory workers: A Detroit study." Human Organization 21, No. 1; 43-46.

Krippner, Stanley C. 1962. "A study of the vocational and educational interests of junior high school students." Dissertation Abstracts 22, No. 8; 2691.

Kuvlesky, William P. 1965. "The non-attainment of adolescents' occupational aspirations: A longitudinal study of rural Pennsylvania males." Unpublished doctoral dissertation, Pennsylvania State University; 218 pages.

Larson, Richard and James L. Olson. 1963. "A method of identifying culturally deprived kindergarten children." Exceptional Children 30, No. 3; 130-134.

Lawler, Edward E., III. 1965. "Managers' perceptions of their subordinates' pay and of their superiors' pay." Personnel Psychology 18, No. 4; 413-422.

Little, James W. 1965. "Vocational plans and problems of university freshmen and factors related to occupational choice." Dissertation Abstracts, 25, No. 8; 4545.

LoCasio, Ralph. 1965. "A study of vocational preference implementation." Unpublished doctoral dissertation, Columbia University; 102 pages.

Lopez, Felix M., Jr. 1962. "A psychological analysis of the relationship of role consensus and personality consensus to job satisfaction and job performance." Dissertation Abstracts 23, No. 3; 1104.

MacLean, Murdock J. 1964. "An investigation of the factors influencing the occupational choices of selected college students." Dissertation Abstracts 25, No. 4; 2351.

Mahoney, Thomas A. 1964. "Compensation preferences of managers." Industrial Relations 3, No. 3; 135-144.

Marr, Evelyn. 1964. "A study of some behaviors and attitudes relating to occupational choice." Dissertation Abstracts 26, No. 7; 4064.

McRae, Glenn G. 1963. "The relationship of job satisfaction and earlier measured interests." Dissertation Abstracts 24, No. 2; 631.

Miller, Jerry. 1965. "An investigation of the rate and degree of vocational interest maturity of adolescent males." Dissertation Abstracts 25, No. 10; 5744.

Montesano, Nicholas and H. Geist. 1964. "Differences in occupational choice between ninth and twelfth grade boys." Personnel Guidance Journal 43, No. 2.

Moriwaki, Takeshi. 1963. "An analysis, classification, and synthesis of research findings and thought on guidance in business education." Dissertation Abstracts 23, No. 11; 4169.

Morris, John L. 1965. "The relation between the perceived probability of success in chosen occupations and achievement-related motivation." Dissertation Abstracts 25, No. 9; 5121.

National Committee on Employment of Youth. 1965. "Getting hired, getting trained." U.S. Department of Health, Education and Welfare, Washington, D. C.; 112 pages.

Nealey, Stanley M. 1963. "Pay and benefit preference." Industrial Relations 3, No. 1; 17-28.

O'Connell, James Joseph. 1964. "Influences on change, refinement, and stability of occupational choice among students of a liberal arts college." Dissertation Abstracts 25, No. 3; 169-171.

Oppenheimer, Ernest A. 1964. "A self-concept approach to predicting occupational preferences." Dissertation Abstracts 25, No. 6; 3691.

Ozoglu, Suleyman C. 1965. "A comparison of occupational choices of achieving and underachieving high school juniors." Dissertation Abstracts 25, No. 11; 6397.

Parker, Treadway C. 1965. "The psychological environment and work group behavior." Personnel Administration 28, No. 5; 26-31.

Powell, Marvin and V. Bloom. 1962. "Development of and reasons for vocational choices of adolescents through the high school years." Journal of Educational Research 56, No. 3; 126-134.

Quinn, Francis X. 1962. "Women at work." Social Order 12, No. 2; 65-71.

Ramsey, Charles E. and Robert J. Smith. 1960. "Japanese and American perceptions of occupations." American Journal of Sociology 65, No. 5; 475-482.

Raudsepp, Eugene. 1966. "Improving the supervisory-management position." Machine Design 38, No. 1; 111-114.

_____. 1965. "Engineering supervision." Machine Design 37, No. 28; 134-137.

Reighard, Edward M. 1963. "The relationship of employee profit sharing programs and work rules." Dissertation Abstracts 24, No. 3; 1014.

Robertson, Leonard F. 1965. "An exploratory study of the effect of cooperative education programs in beginning occupations on selected employment factors." Unpublished doctoral dissertation, Colorado State College; 300 pages.

Robins, Lee and others. 1966. "School mileau and school problems of Negro boys." Social Problems 13, No. 4; 428-436.

Rosen, Ned A. and Stephen M. Sales. 1966. "Behavior in a non-experment: The effects of behavioral field research on the work performance of factory employees." Journal of Applied Psychology 50, No. 2; 165-171.

Rosengarten, William Jr. 1962. "The occupational orientation of high school seniors: An experiment in vocational guidance." Dissertation Abstracts 23, No. 2; 497.

Ruff, Eldon E. 1963. "An analysis of the occupational adjustment problems of young adults in St. Joseph County, Indiana." Dissertation Abstracts 23, No. 8; 2759.

Ryan, Charles O. 1965. "The effects of occupational information on the career aspirations of high school boys with limited academic ability." Unpublished doctoral dissertation, University of Arizona; 134 pages.

Searle, Ray R. 1962. "A study of the stability of vocational values as measured by the Vocational Values Inventory." Dissertation Abstracts 23, No. 4; 1441.

Seavit, Charles R. 1966. "A comparative analysis of high school non-graduates and more college bound graduates." Unpublished doctoral dissertation, University of Michigan; 230 pages.

Sewell, William H. and A. M. Orenstein. 1965. "Community of residence and occupational choice." American Journal of Sociology 70, No. 5; 551-563.

Silverman, Dorothy. 1963. "An evaluation of the relationship between attitudes toward self and attitudes toward a vocational high school." Journal of Educational Sociology 36, No. 9.

Silverman, Edward H. 1965. "An investigation of certain occupational interests of 1600 students enrolled in eight selected vocational and technical training programs not requiring college degree." Dissertation Abstracts 25, No. 7; 4253.

Simpson, Richard L. and I. H. Simpson. 1962. "Social origins, occupational advice, occupational values, and work careers." Social Forces 40, No. 3; 264-271.

Solie, Richard J. 1965. "Job retraining under the Area Redevelopment Act: The Campbell-Clairborne Counties case." Unpublished doctoral dissertation, University of Tennessee; 253 pages.

Sonenblum, Sidney. 1965. "Some quantitative dimensions of California economic prospects in the coming decade." (MR-22) Institute of Government and Public Affairs, University of California, Los Angeles.

Sorenson, Garth and I. Morris. 1962. "Attitudes and beliefs as sources of vocational preference." Journal of Educational Research 56, No. 2; 20-27.

Sprey, Jetse. 1962. "Sex differences in occupational choice patterns among Negro adolescents." Social Problems 10, No. 1; 11-22.

Spitzer, Morton E. 1964. "Goal-attainment, job satisfaction and behavior." Dissertation Abstracts 25, No. 3; 2037.

Sprinkle, Ronald L. 1962. "Permanence of measured vocational interests and socio-economic background." Dissertation Abstracts 22, No. 10; 3527.

Stanford Research Institute. 1965. "An evaluation of the concept of trainee camps for unemployed youths." Prepared for OMAT U.S. Department of Labor Project I-5504; 101 pages.

Steinman, Ann. 1966. "Guidance personnel and the college woman." Personnel Journal 45, No. 5; 294-299.

Stockin, Bruce C. 1964. "A test of Holland's occupational level formulation." Personnel and Guidance Journal 42; 599-602.

Strait, Leland C. 1964. "Factors contributing to declining enrollments in the college of agriculture at Washington State University." Dissertation Abstracts 25, No. 3; 1671.

Swanson, Robert Allen. 1964. "A study of factors related to the distortion of interest inventory information interpreted to individuals and to groups." Dissertation Abstracts 25, No. 1; 304.

Sykes A. J. 1964. "A study in changing the attitudes and stereotypes of industrial workers." Human Relations 17, No. 2; 143-154.

Tetreau, Bernard P. 1965. "Open-mindedness and accuracy of self-knowledge: A study of cognitive factors influencing realism of vocational preference." Unpublished doctoral dissertation, Columbia University; 129 pages.

Toperowski, Theodore T. 1961. "A critical evaluation of an experimental occupational information unit taught high school seniors by social studies teachers." Dissertation Abstracts 22, No. 6; 1878.

Ullman, Joseph C. 1963. "How accurate are estimates of state and local unemployment." Industrial and Labor Relations Review 16, No. 3; 434-452.

Uzell, O. 1961. "Occupational aspirations of Negro male high school students." Sociology and Social Research 45, No. 2; 202-209.

Wagner, William V. 1963. "An evaluation of the vocational counseling program of the employment security service in Kanawah County." Journal of Educational Research 56, No. 7; 373-375.

Walt, Dorothy E. 1962. "The motivation for women to work in high-level professional positions." Dissertation Abstracts 23, No. 5; 1817.

Was, Murray L. and others. 1964. "Formal education in an American Indian community." Social Problems 11, No. 4; 124.

Watson, Billy. 1965. "A study of the ability of supervisors to rank selected social and egoistic needs of their employees." Unpublished doctoral dissertation, University of Colorado; 212 pages.

Wilensky, Harold L. 1963. "The moonlighter: A product of relative deprivation." Industrial Relations 3, No. 1; 105-124.

Wiley, Robert W. 1963. "A comparative evaluation of the roles of ministers, school counselors, parents, and others in assisting youth with life-work selection problems." Dissertation Abstracts 23, No. 11; 4205.

Wolfe, Donald M. and Diedrick Snoek. 1962. "A study of tensions and adjustment under role conflict." Journal of Social Issues 18, No. 2; 102-121.

Youngberg, Charles F. 1964. "An experimental study of 'job satisfaction' and turnover in relation to job expectations and self expectations." Dissertation Abstracts 25, No. 1; 656.

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